

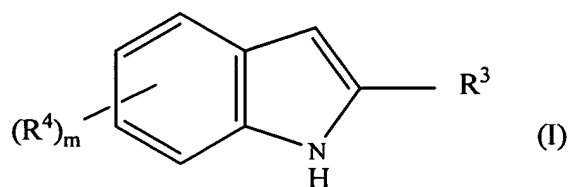
## AMENDMENT TO THE CLAIMS

1. (Currently Amended) ~~A Stabilizer~~ stabilizer system for stabilizing halogen-containing polymers against thermal ~~induced induced~~ degradation, comprising ~~at least~~

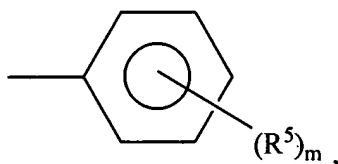
(a) at least one perfluoroalkanesulphonate salt and

(b) at least one or more indoles and/or ureas and/or alkanolamines and/or aminouracils,

~~where~~ wherein the indoles have the general formula (I)



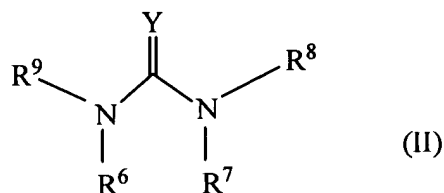
~~where~~ wherein m [=] is 0, 1, 2 or 3; R<sup>3</sup> [=] is C<sub>1</sub>-C<sub>18</sub>[-] alkyl, C<sub>2</sub>-C<sub>18</sub>[-] alkenyl, phenyl or



C<sub>7</sub>-C<sub>24</sub>[-] alkylphenyl, C<sub>7</sub>-C<sub>10</sub>[-] phenylalkyl or C<sub>1</sub>-C<sub>4</sub>[-] alkoxy;

R<sup>4</sup> [,] and R<sup>5</sup> [=] are H, C<sub>1</sub>-C<sub>4</sub>[-] alkyl, or C<sub>1</sub>-C<sub>4</sub>[-] alkoxy;

~~where~~ wherein the ureas have the general formula (II)



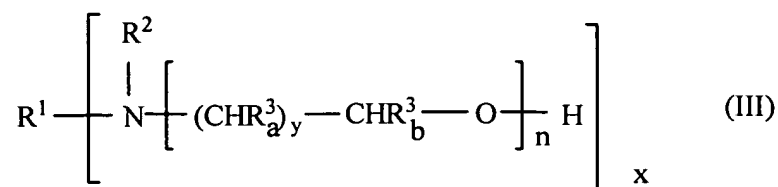
~~where~~ wherein Y[=] is O, S or NH; R<sup>6</sup>, R<sup>7</sup>, R<sup>8</sup> and R<sup>9</sup>, independently of one another,

are H, C<sub>1</sub>-C<sub>18</sub> [-] alkyl[,], ~~where appropriate~~ optionally substituted with hydroxyl

groups and/or C<sub>1</sub>-C<sub>4</sub> [-] alkoxy groups, C<sub>2</sub>-C<sub>18</sub> [-] alkenyl, phenyl[, where

appropriate]] optionally substituted with up to 3 hydroxy and/or C<sub>1</sub>-C<sub>4</sub> [-]

alkyl/alkoxy groups, C<sub>7</sub>-C<sub>20</sub> [-] alkylphenyl or C<sub>7</sub>-C<sub>10</sub> [-] phenylalkyl, and 2-substituents selected from R<sup>6</sup> to R<sup>9</sup> may also form a ring, ~~and the urea used may also be or a dimerized or trimerized urea thereof, e.g., biuret or 1,3,5-tris(hydroxyalkyl) isocyanurate and possible~~ and reaction products of ~~these~~ thereof, ~~where~~ wherein the alkanolamines have the formula (III)



~~where~~ wherein x[=] is 1, 2 or 3; y[=] is 1, 2, 3, 4, 5 or 6; n[=] is 1-10;

R<sup>1</sup> and R<sup>2</sup> [ = ] independently of one another are H, C<sub>1</sub>-C<sub>22</sub>[-]alkyl,

-[(CHR<sup>3</sup><sub>a</sub>)<sub>y</sub>-CHR<sup>3</sup><sub>b</sub>-O]<sub>n</sub>-H, -[(CHR<sup>3</sup><sub>a</sub>)<sub>y</sub>-CHR<sup>3</sup><sub>b</sub>-O]<sub>n</sub>-CO-R<sup>4</sup>, C<sub>2</sub>-C<sub>20</sub>[-] alkenyl, C<sub>2</sub>-

C<sub>18</sub>[-] acyl, C<sub>4</sub>-C<sub>8</sub>[-] cycloalkyl, which may have OH substitution in the β-position,

phenyl, C<sub>7</sub>-C<sub>10</sub>[-] alkylphenyl or C<sub>7</sub>-C<sub>10</sub>[-] phenylalkyl, or if x=1, R<sup>1</sup> and R<sup>2</sup> may

also form, together with the N atom to which each is bonded to, a closed 4-10

membered ring of carbon atoms ~~and[,]~~ ~~where appropriate[,]~~ of optionally

containing up to 2 heteroatoms, or if x=2, R<sup>1</sup> may also be C<sub>2</sub>-C<sub>18</sub>[-] alkylene which

may have OH substitution at the two β-carbon atoms and/or may have interruption by

one of more O atoms and/or by one or more NR<sub>2</sub> groups, ~~or may be a~~ dihydroxy-

substituted tetrahydrodicyclopentadienylene, dihydroxy substituted

ethylcyclohexanylene, dihydroxy-substituted 4,4'-(bisphenol-A-dipropyl ether)ylene,

isophoronylene, dimethylcyclohexanylene, dicyclohexylmethanylene or 3,3'-

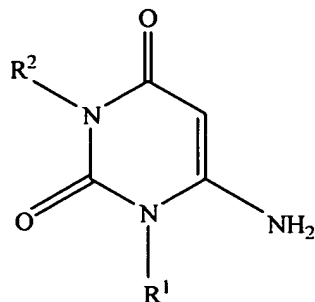
dimethyldicyclohexylmethanylene, ~~and~~ or if x=3, R<sup>1</sup> may also be a trihydroxy-

substituted (tri-N-propyl isocyanurate)triyl; R<sup>3</sup><sub>a</sub> and R<sup>3</sup><sub>b</sub>[ = ]independently of one

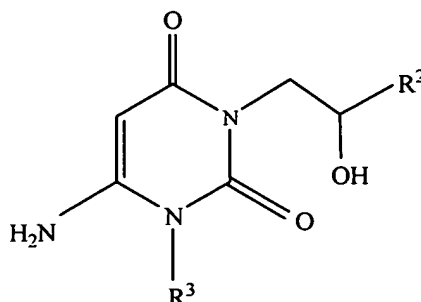
another are [ , ] C<sub>1</sub>-C<sub>22</sub>[-] alkyl, C<sub>2</sub>-C<sub>6</sub>[-] alkenyl, phenyl, C<sub>6</sub>-C<sub>10</sub>[-] alkylphenyl,

H or CH<sub>2</sub>-X-R<sup>5</sup>, ~~where~~ wherein X [ = ] is O, S, -O-CO- or -CO-O-; R<sup>4</sup>[ = ] is C<sub>1</sub>-

C<sub>18</sub>[-] alkyl[/], alkenyl or phenyl; and R<sup>5</sup>[=] is H, C<sub>1</sub>-C<sub>22</sub> [-] alkyl, C<sub>2</sub>-C<sub>22</sub>[-] alkenyl, phenyl or C<sub>6</sub>-C<sub>10</sub>[-] alkylphenyl, and the aminouracils have the formula (IVa) or (IVb)



(IVa)



(IVb)

where wherein in the case of (IVa) R<sup>1</sup> and R<sup>2</sup>, independently of one another, are H, unsubstituted or C<sub>1</sub>-C<sub>4</sub>[-]alkyl-, C<sub>1</sub>-C<sub>4</sub>[-] alkoxy- and/or hydroxyl-substituted phenyl, or are phenyl-C<sub>1</sub>-C<sub>4</sub>[-]alkyl which is unsubstituted or has C<sub>1</sub>-C<sub>4</sub>[-]alkyl, C<sub>1</sub>-C<sub>4</sub>[-]alkoxy and/or hydroxyl substitution on the phenyl ring, C<sub>3</sub>-C<sub>6</sub>[-]alkenyl, C<sub>5</sub>-C<sub>8</sub>[-]cycloalkyl, or are C<sub>3</sub>-C<sub>10</sub>[-]alkyl interrupted by at least one oxygen atom, or are CH<sub>2</sub>-CHOH-R<sub>3</sub>, wherein R<sub>3</sub>[=] is H, or C<sub>1</sub>-C<sub>4</sub>[-]alkyl, C<sub>2</sub>-C<sub>4</sub>[-]alkenyl, C<sub>4</sub>-C<sub>8</sub>[-]cycloalkyl, phenyl, C<sub>7</sub>-C<sub>10</sub>[-]alkylphenyl or C<sub>7</sub>-C<sub>10</sub>[-]phenylalkyl, and in the case of N- or N'-monosubstituted aminouracils R<sup>1</sup> or R<sup>2</sup> is also C<sub>3</sub>-C<sub>22</sub>[-]alkyl, and in the case of (IVb) R<sup>2</sup> [=] is H, or the radicals C<sub>1</sub>-C<sub>4</sub>[-]alkyl, C<sub>2</sub>-C<sub>4</sub>[-]alkenyl, or C<sub>4</sub>-C<sub>8</sub>[-]cycloalkyl, phenyl, C<sub>6</sub>-C<sub>10</sub>[-]alkylphenyl, C<sub>7</sub>-C<sub>10</sub>[-]phenylalkyl, -CH<sub>2</sub>-X-R<sup>4</sup>, where wherein R<sup>4</sup> [=] is H, a C<sub>1</sub>-C<sub>10</sub>[-]alkyl, or a C<sub>2</sub>-C<sub>4</sub>[-]alkenyl radical or C<sub>4</sub>-C<sub>8</sub>-cycloalkyl, where appropriate also containing an oxirane ring; or where appropriate substituted with from 1 to 3 C<sub>1</sub>-C<sub>4</sub>[-]alkyl radicals, or with a benzoyl radical or a C<sub>2</sub>-C<sub>18</sub>[-]acyl radical, and X[=] is O or S; R<sup>3</sup>=R<sup>2</sup> or R<sup>4</sup>; C<sub>2</sub>-C<sub>6</sub>[-]alkyl substituted with an at least 1-5 OH groups and/or interrupted by at least 1 to a maximum of 4 O atoms, or is CH<sub>2</sub>-CH(OH)R<sup>2</sup> for stabilizing chlorine-containing polymers.

2. (Currently Amended) ~~The Stabilizer~~ stabilizer system according to Claim 1, wherein the perfluoroalkanesulphonate salt is a salt of ~~the metals~~ a metal selected from the group consisting of Li, Na, K, Mg, Ca, Sr, Ba, Sn, Zn, Al, La ~~or~~ and Ce.

3. (Currently Amended) ~~The Stabilizer~~ stabilizer system according to Claim 1 ~~or 2~~, where in the compound having the general formula (I)  $R^3$  ~~[[=]]~~ is phenyl, in the compound having the general formula (II), ~~independently of one another~~ ~~[[,]]~~  $R^6$ ,  $R^7$ ,  $R^8$  and  $R^9$  ~~[[=]]~~ independently are phenyl or H, in the compound having the general formula (III)  $n$  ~~[[=]]~~ is 1 ~~[[,]]~~ and  $y$  ~~[[=]]~~ is 2 or 3, in the compound having the general formula (IVa)  $R^1$  and  $R^2$   ~~$R^2$  and  $R^1$  is~~ independently are  $H$ , and  $C_2-C_4$  ~~[[=]]~~ alkenyl or  $C_3-C_{10}$  ~~[[=]]~~ alkyl and in the compound having the general formula (IVb)  $R^3$  ~~[[=]]~~ is methyl or benzyl and  $R^2$  ~~[[=]]~~ is  $C_2-C_8$  ~~[[=]]~~ alkyl, ~~or~~  $C_3-C_6$  ~~[[=]]~~ alkenyl ~~[[=]]~~ or  $(C_1-C_8$ -alkoxy)methyl.

4. (Currently Amended) ~~The Stabilizer~~ stabilizer system according to ~~any of Claims Claim 1 to 3~~, where in the perfluoroalkanesulphonate salt is sodium ~~triflat~~ triflate or potassium ~~triflat~~ triflate.

5. (Currently Amended) ~~The Stabilizer~~ stabilizer system according to ~~any of Claims Claim 1~~ ~~[[to 4]]~~, ~~where~~ wherein the ~~compounds~~ indoles of the general formula (I) are 2-phenylindole or 2-phenyllaurylindole, the ~~compounds~~ ureas of the general formula (II) are N,N'-diphenylthiourea, N-phenylurea, trishydroxyethyl or trishydroxypropyl isocyanurate, the ~~compounds~~ alkanolamines of the general formula (III) are reaction products of  $NH_3$ , or of primary or secondary amines, ~~in particular fatty amines~~ ~~[[,]]~~ with ethane oxide, propene oxide, butane oxide or (thiol) glycidyl ethers ~~in a molar ratio of 1:3, 1:2 or 1:1~~ ~~[[,]]~~ or are reaction products of (thio)glycidyl

ethers with alkanolamines~~[[,]] such as ethanol, propanol or butanolamines in a molar ratio of 1:2 or 1:1,~~ in the compounds of the general formula (IVa)  $R^1$  and  $R^2$  ~~or  $R^2$  and  $R^1$  independently~~ are H, and allyl, propyl and or butyl, and in the compounds of the general formula (IVb)  $R^3$  ~~[[=]] is~~ methyl and  $R^2$  ~~[[=]] is~~ ethyl or ~~allyloxymethyl~~ allyloxymethyl.

6. (Currently Amended) ~~The Stabilizer~~ stabilizer system according to Claim 4, ~~where, alongside the compounds of the formulae (I) to (III) [[,]] wherein~~ at least one compound of the formula (IVa) is present~~[[,]] and where wherein~~  $R^1$  ~~[[=]] and  $R^2$  [[=]] are  $C_{1-22}$  [[-]]alkoxy or oleyl,~~ and this aminouracil may ~~moreover have been be~~ partially or entirely replaced ~~entirely or to some extent~~ by a corresponding structurally isomeric cyanoacetylurea.

7. (Currently Amended) ~~The Stabilizer~~ stabilizer system according to ~~any of Claims Claim 1 to 6, which also, where appropriate, comprises~~ further comprising metal soaps, ~~and/or, where appropriate, comprises at least one or more other substances from the groups consisting of the polyols, and disaccharide alcohols, glycidyl compounds, hydrotalcites, alkali metal/alkaline earth metal aluminosilicates, alkali metal/alkaline earth metal hydroxides, alkaline earth metal oxides, or alkaline earth metal (hydrogen) carbonates, or alkali metal (alkaline earth metal) hydroxycarboxylates or metal carboxylates, phosphates, plasticizers, antioxidants, fillers, pigments, light stabilizers, lubricants, and epoxidized fatty esters and mixtures thereof.~~

8. (Currently Amended) ~~The stabilizer~~ system according to ~~any of Claims Claim 1 [[to 7]], where further comprising~~ a phosphate ~~is also present~~.

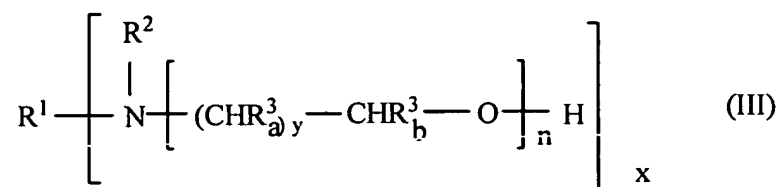
9. (Currently Amended) ~~A Composition~~ composition comprising a chlorine-containing polymer and a the stabilizer system according to ~~any of Claims Claim 1 to~~ 8.

10. (Currently Amended) ~~The Composition~~ composition according to Claim 9, ~~characterized in that based on 100 parts by weight of chlorine-containing polymer[[,]] there are~~ comprising from 0.01 to 10 parts by weight of the compounds of the general formula (I) and/or (II) and/or (III) and/or (IVa) and/or (IVb) and from 0.001 to 5 parts by weight of the perfluoroalkanesulphonate salt based on 100 parts by weight of the chlorine-containing polymer.

11. (Currently Amended) ~~A Process~~ process for stabilizing a chlorine-containing polymers polymer against thermal ~~induced induced~~ degradation by the process comprising adding a the stabilizer system according to ~~any of Claims Claim 1 to 8~~ to the chlorine-containing polymer.

12. (Currently Amended) ~~A Consumer~~ consumer product ~~products~~ comprising PVC a polyvinyl chloride and the ~~which has been stabilized against thermal induced degradation by a~~ stabilizer system according to ~~any of Claims Claim 1 to 8.~~

13. (Currently Amended) ~~The Stabilizer~~ stabilizer system according to Claim 1, ~~where~~ wherein component b is



for prestabilizing polyvinyl chloride against thermal induced degradation.

14. (New) The composition according to Claim 9, wherein the chlorine-containing polymer is selected from the group consisting of a polymer of vinyl chloride, polymer of vinylidene chloride, polymer of a vinyl resin containing vinyl chloride units, copolymer of vinyl chloride with a diene compound and an unsaturated carboxylic acid or anhydride thereof, post chlorinated polymer or copolymer of vinyl chloride, copolymer of vinyl chloride and vinylidene chloride with an unsaturated aldehyde or ketone, polymer of vinyl chloroacetate and a dichlorodivinyl ether, chlorinated polymer of vinyl acetate, chlorinated polymeric ester of acrylic acid and an alpha-substituted acrylic acid, polymer of a chlorinated styrene, chlorinated rubber, chlorinated polymer of ethylene, polymer or post-chlorinated polymer of chlorobutadiene or a copolymer thereof with vinyl chloride or a chlorinated natural or synthetic rubber and mixtures thereof.

15. (New) The process according to Claim 11, wherein the chlorine-containing polymer is selected from the group consisting of a polymer of vinyl chloride, polymer of vinylidene chloride, polymer of a vinyl resin containing vinyl chloride units, copolymer of vinyl chloride with a diene compound and an unsaturated carboxylic acid or anhydride thereof, post chlorinated polymer or copolymer of vinyl chloride, copolymer of vinyl chloride and vinylidene chloride with an unsaturated aldehyde or ketone, polymer of vinyl chloroacetate and a dichlorodivinyl ether,

chlorinated polymer of vinyl acetate, chlorinated polymeric ester of acrylic acid and an alpha-substituted acrylic acid, polymer of a chlorinated styrene, chlorinated rubber, chlorinated polymer of ethylene, polymer or post-chlorinated polymer of chlorobutadiene or a copolymer thereof with vinyl chloride or a chlorinated natural or synthetic rubber and mixtures thereof.